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10/722,987	11/26/2003	Leonard Ciprian Mosescu	MSFT-2835/ 306097.01	9026

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EXAMINER

COLAN, GIOVANNA B

ART UNIT

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2162

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/722,987

**Applicant(s)**

MOSESCU, LEONARD CIPRIAN

**Examiner**

GIOVANNA COLAN

**Art Unit**

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 6 - 7, 25, 30 - 31, and 37 - 52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6 - 7, 25, 30 - 31, and 37 - 52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This action is issued in response to the Amendment filed on 12/08/2008.
2. Claims 1, 6 – 7, 25, 30 – 31, and 37 – 43 were amended. Claims 2 – 5, 8 – 24, 26 – 29, and 32 – 36 were canceled. Claims 44 – 52 were added.
3. This action is made Final.
4. Claims 1, 6 – 7, 25, 30 – 31, and 37 – 52 are pending in this application.

***Response to Arguments***

5. Applicant's arguments with respect to amended claims 1, 6 – 7, 25, 30 – 31, and 37 – 43 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 6 – 7, 25, 30 – 31, and 37 – 47, and 50 – 52 are rejected under 35 U.S.C. 102(b) as being anticipated by Grover et al. (Grover hereinafter) (US 5,818,437).

Regarding Claim 1, Grover discloses a method for using a limited input keypad to search for data contained in an electronic device, the limited input keypad comprising a plurality of keys, each of which is an alphanumeric key that is identifiable by a unique number and a corresponding subset of an alphabet, the method comprising:

storing a plurality of text strings and a corresponding plurality of numeric strings, wherein each of the plurality of numeric strings is formed by matching each individual letter contained in a text string with a corresponding number located on the same alphanumeric key (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover);

receiving a first portion of a query via activation of a first alphanumeric key by a user of the limited input keypad (Col. 4, lines 34 – 40, Grover);

searching the stored plurality of numeric strings for identifying a first numeric string having in a first position, a first number that corresponds to the unique number on the activated first alphanumeric key (Col. 4, lines 46 – 52, and 61 – 64, Grover);

receiving a second portion of the query via activation of a second alphanumeric key by the user of the limited input keypad (Col. 5, lines 22 – 25, Grover);

performing a further search on the plurality of numeric strings for identifying a second numeric string having in the first position, the first number that corresponds to the unique number on the activated first alphanumeric key, and in an adjacent position, a second number that corresponds to the unique number on the activated second alphanumeric key (Col. 1, lines 44 – 53, Grover); and

using the identified second numeric string to identify the corresponding text string associated with the identified second numeric string, and use the identified corresponding text string to provide to the user, data contained in the electronic device (Col. 1, lines 53 – 58, Grover).

Regarding Claim 2, Grover discloses a method, further comprising storing the plurality of text strings and the corresponding plurality of numeric strings as a table (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 7, Grover discloses a method, wherein the storing as a table comprises:

storing each of the plurality of text strings in respective rows in a first column of the table (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover); and

storing each of the corresponding plurality of numeric strings in corresponding respective rows in a second column of the table (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 25, Grover discloses a data searching system, comprising:  
a limited input keypad comprising a plurality of keys, each of which is an alphanumeric key identifiable by a unique number and a corresponding subset of an alphabet (Fig. 1, item 202, Grover);  
a storage device for storing a plurality of text strings and a corresponding plurality of numeric strings; wherein each of the plurality of numeric strings is formed by matching each individual letter contained in a text string with a corresponding number

located on the same alphanumeric key (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover);

a display device for displaying a search result comprising data associated with at least one of the plurality of text strings (Fig. 3, item 107, Grover); and

a processor responsive to a query that is initiated by activation of a first alphanumeric key, by performing a search on the stored plurality of numeric strings, and providing to the display, the search result, after detecting a first numeric string that contains the unique number of the activated first alphanumeric key in a first position of the first numeric string, and identifying therefrom, a corresponding text string corresponding to the first numeric string (Col. 1, lines 44 – 53, Grover).

Regarding Claim 30, Grover discloses a system, wherein the storage device comprises a table for storing a mapping between the plurality of text strings and the corresponding plurality of numeric strings (Fig. 10, table "Tag Content", Grover).

Regarding Claim 30, Grover discloses a system, wherein the table comprises: rows in a first column of the table for storing each of the plurality of text strings (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover); and

corresponding rows in a second column of the table for storing each of the plurality of numeric strings (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 37, Grover discloses a method to search for data contained in an electronic device by recognizing a string of letters wherein each letter contained in the string of letters is inputtable into the electronic device via a limited input keypad, the limited input keypad comprising at least one alphanumeric key that combinedly represents a unique number and a corresponding subset of an alphabet, the method comprising:

populating a lookup table by mapping the string of letters to a string of numbers, the mapping (Col. 4, lines 46 – 52, Grover) comprising:

identifying depression of a first alphanumeric key on the keypad, wherein the first alphanumeric key is selected to correspond to a first letter in the string of letters (Col. 4, lines 34 – 40, Grover);

storing a first number that is the same as the unique number associated with the first alphanumeric key (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover);

identifying depression of a second alphanumeric key on the keypad, wherein the second alphanumeric key is selected to correspond to a second letter in the string of letters (Col. 5, lines 22 – 25, Grover); and

storing a second number that is the same as the unique number associated with the second alphanumeric key, wherein the second number is stored along with the first number, and wherein the combination of the first and second numbers comprises the string of numbers that enables a subsequent number search for

recognizing a subsequent entry of the string of letters via the limited input keypad, and locating thereon, data associated with the recognized string of letters (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 38, Grover discloses a method, further comprising:

completing the mapping by storing each of the numbers corresponding to each of the letters in the string of letters (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover); and

using the lookup table for recognizing a subsequent entry of the string of letters into the limited input keypad (Col. 4, lines 46 – 52, Grover), the recognizing comprising:

identifying subsequent depression of the first alphanumeric key on the keypad (Col. 4, lines 34 – 40, Grover);

searching the lookup table to locate the first number associated with the first alphanumeric key (Col. 4, lines 46 – 52, and 61 – 64, Grover);

identifying subsequent depression of the second alphanumeric key on the keypad (Col. 5, lines 22 – 25, Grover);

searching the lookup table to locate the second number associated with the second alphanumeric key (Col. 1, lines 44 – 53, Grover); and

recognizing from the combination of first and second numbers, the combination of the first and second letters that comprise the string of letters (Fig. 10,



table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 37, Grover discloses a method, further comprising:

displaying the combination of the first and second letters to indicate the presence of a potential match in the lookup table (Fig. 7F, items 732 and 733; and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 40, Grover discloses a method, further comprising:

displaying all letters in the string of letters upon recognizing an exact match in the string of numbers contained in the lookup table (Fig. 7k, item 746, Grover).

Regarding Claim 41, Grover discloses a method, further comprising:

populating the lookup table by mapping a plurality of additional letter strings to a corresponding plurality of additional number strings (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 42, Grover discloses a method, further comprising:

displaying at least one letter from one of the additional letter strings as a potential match during the subsequent entry of the string of letter into the limited input keypad (Col. 5, lines 22 – 25, Grover).

Regarding Claim 43, Grover discloses a method, further comprising:  
displaying duplicate matches that exist in the lookup table (Fig. 5, items 501 - 504, Grover).

Regarding Claim 44, Grover discloses a method, wherein the identified second numeric string is the same as the first numeric string (Col. 4, lines 46 – 53, Grover).

Regarding Claim 48, Grover discloses a system, wherein the processor is further responsive to activation of a second alphanumeric key, by performing a further search on the stored plurality of numeric strings for detecting a second numeric string that contains the unique number of the activated second alphanumeric key in a second position adjacent to the first position in the second numeric string (Col. 1, lines 44 – 53, Grover).

Regarding Claim 49, Grover discloses a system, wherein the detected second numeric string is the same as the detected first numeric string (Col. 4, lines 46 – 53, Grover).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
10. Claims 45 – 47, and 50 – 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grover et al. (Grover hereinafter) (US 5,818,437) in view of Griffin et al. (Griffin hereinafter) (US 7,227,536)

Regarding Claim 45, Grover discloses all the limitations as discussed above. However, Grover does not explicitly disclose: a name of a contact. On the other hand, Griffin discloses: contact stored in the electronic device (Col. 2, lines 46 – 53, Griffin). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grover by incorporating the contact stored in the electronic device, in the same conventional manner as disclosed by Griffin's system. Skilled artisan would have found it motivated to use such a modification in order to provide software implemented user interface system that is designed, at least in part, to support and encourage data entry through use of the thumbs (Col. 2, lines 32 – 35, Griffin)

Regarding Claim 46, the combination of Grover in view of Griffin (Grover/Griffin hereinafter) discloses a method, wherein the data associated with the name of the contact comprises at least one of a) a phone number, and b) an address (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 2, lines 46 – 53, Griffin).

Regarding Claim 47, Grover/Griffin discloses a method, wherein the plurality of text strings corresponds to names of a contact list stored in the electronic device, and the data associated with each of the names is stored together with the names in the table (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 2, lines 46 – 53, Griffin).

Regarding Claim 50, Grover/Griffin discloses a system, wherein the identified second numeric string is a name of a contact stored in the electronic device (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 2, lines 46 – 53, Griffin).

Regarding Claim 51, Grover/Griffin discloses a system, wherein the data associated with the name of the contact comprises at least one of a) a phone number, and b) an address (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 2, lines 46 – 53, Griffin).

Regarding Claim 52, Grover/Griffin discloses a system, wherein the plurality of text strings corresponds to names of a contact list stored in the electronic device, and the data associated with each of the names is stored together with the names in the table (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 2, lines 46 – 53, Griffin).

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Points Of Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIOVANNA COLAN whose telephone number is (571)272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan  
Examiner  
Art Unit 2162  
March 16, 2009

/John Breene/

Supervisory Patent Examiner, Art Unit 2162

